A Centralized Local Area Network Management Tool

Field Service

digital

NMCC/VAX ETHERnim software is a network management tool from Digital designed to assist you in maintaining information flow at the local network level. It locates essential network management functions at your fingertips.

ETHERnim provides you with a database of devices on your local area network (LAN). It graphically displays the topology of network segments, and lets you test the communication paths to isolate network faults.

ETHERnim can support extended local networks of practically unlimited size.

Highlights

- NMCC/VAX ETHERnim Lets You Face Network Challenges Confidently
- A Layered VMS Product, ETHERnim Needs No Additional Hardware
- Automatically Inventories Your Network—Regardless of Size
- A Powerful Tool for On-Line Fault Isolation
- Clearly Displays Your Network's Topology
- Supports All VAX, MicroVAX II and End Nodes as Host

NMCC/VAX ETHERnim Lets You Face New Network Challenges

Digital has pursued a very consistent goal for the past decade and a half: to make people and computers work together easily in distributed networks. And Digital has developed a unique network architecture, a compatible product line, and a powerful arsenal of network management products to help you meet the network challenge with confidence.

ETHERnim is a network management tool from Digital that can keep you fully informed about the configuration and integrity of your local area network at all times. It lends itself to both centralized and distributed approaches to network management.

A Layered VMS Product, ETHERnim Needs no Additional Hardware.

NMCC/VAX ETHERnim uses DECnet functions to build a database for each node in the Ethernet network. It runs as a layered product on the VMS operating system *and requires no additional hardware.*

You can command ETHERnim to gather information about nodes in the network by polling and listening for responses. This process occurs at different layers of the Digital Network Architecture (DNA).

ETHERnim recognizes both DECnet and non-DECnet connections to the LAN, and will provide the hardware address of any node that responds on the LAN. Optional ETHERnim software installed on remote nodes allows testing at the highest DNA level.

Inventory Your Network— Automatically.

To manage your network, you must know exactly what's on it—and what's changed. ETHERnim lets you use simple commands to collect information from the network automatically, to build a database of significant software and hardware attributes of stations on the network.

You can also enter and update information in the database manually. Some information can *only* be entered manually—such as who is resonsible for the node, descriptive text, and information about non-Digital nodes.

The information-gathering process can also proceed under a set of background tasks while you perform other ETHERnim tasks. All documentation is easily accessible on-line in the form of conveniently arranged HELP commands, whether you're using ETHERnim at your office or at a remote site. So ETHERnim makes it easy for you to inventory your network, both on start-up and periodically thereafter.
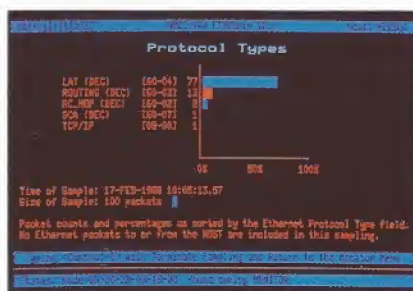
ETHERnim is a powerful tool to help you keep track of devices on your network!

On-Line Fault Isolation.

NMCC/VAX ETHERnim performs path testing to International Standards Organization (ISO) levels I and II for all nodes on the Ethernet, including those not running DECnet Phase IV. ETHERnim also recognizes non-DECnet Ethernet addresses. For any nodes running DECnet Phase IV or higher, ETHERnim performs path testing to DNA network user layers.

The results of path testing are retained during each ETHERnim session, and recorded in a session history file.

ETHERnim provides subsets of software that may be *optionally* installed in target nodes. This enables you to test the higher DECnet/ISO layers by loopback tests that require explicit communication between the host and target VAX/VMS nodes. You can invoke these path tests for any problem node in your network. By testing the reachability of a node at different DECnet/ISO levels, you can differentiate between disruptions in connectivity at the hardware level and software problems at the applications level.

Clear Displays of Your Network's Topology.

NMCC/VAX ETHERnim provides several types of clearly laid-out screen displays that let you rapidly review the information in the database.

- **A color graphic display** shows the local topology. It can include up to sixteen nodes anywhere in the network at a time. It provides a clear schematic view of nodes, node names, operating systems and logical connection pathways.

- **Segment and node information screens** display node-specific information such as Node Name, Ethernet Port Type, Transceiver Type, DECnet Address, Ethernet address; or segment-specific information including the Segment Name, Cable Type and Descriptive Text. They also show manually entered information such as who the systems manager is, where the node is located, or which number to dial if you want to perform a remote diagnostic test.

These displays can provide you with quick on-the-spot views of important information about any node or segment on your network at a moment's notice, even from a remote location.

- **A topology list** provides a comprehensive network overview in table form. It lists all segments and connecting nodes in the network, and provides HELP features. By scrolling up or down you can rapidly survey the composition of your entire extended LAN.

- **Test screens** summarize the results of path tests you have commanded ETHERnim to run on a given node. They show in a clear and concise format whether a problem node is reachable or not, at various levels of the network architecture.

Supported Nodes as a Host for ETHERnim.

Nodes are devices that use the Ethernet to communicate. NMCC/VAX ETHERnim, Version 2.0 runs as a VMS layered product on a VAX or MicroVAX II system with an Ethernet device connected to a LAN Ethernet. The host system may be configured as a router or as an end node, and you can use any Ethernet device connected to the host.

Supported Target Nodes.

NMCC/VAX ETHERnim Version 2.0 supports a wide range of target nodes—nodes that ETHERnim can see and test. Examples are central processing units (CPU), bridges and terminal servers.

ETHERnim primarily *tests* Digital products, but it can *detect* both Digital and non-Digital processor on the network. It can be used for configuration management of *all* nodes, although some specific information—such as data about non-Digital nodes—must be keyed into the database manually.

Processors
Any VAX and MicroVAX II configuration running VMS can be an ETHERnim target node.

ETHERnim will support processors running DECnet-DOS only by "hearing" them, and by providing for their creation, modification and deletion in the database.

Bridges
ETHERnim identifies bridges in the network, including the Vitalink TRANSLAN bridge, Digital's LAN bridge 100 type (DEBET) and METRO-wave bridge.

Multiple Segments
Larger networks are comprised of multiple segments. NMCC/VAX ETHERnim, Version 2.0 can keep track of the segments and the devices that connect them.

User-supplied information associated with each segment (technology type, location etc.) is stored in the ETHERnim database.

There is no limit to the number of segments (nor, therefore, to the extent of the LAN) that can be supported by ETHERnim.

Electrically Transparent Ethernet Devices
Ethernet networks use several types of electrically transparent connection devices:

- Repeaters (DEREP);
- Multiport Repeaters (DEMPR) and thin-wire Ethernet;
- Digital's Ethernet Local Interconnect Boxes (DELNI);

Although ETHERnim cannot "hear" or directly test these devices, it provides you with the ability to list, describe, and track them in your database so they will be displayed properly as part of the network topology.

ETHERnim—One of Digital's Many Powerful Network Service Offerings.

Our many powerful network management tools and services reflect Digital's commitment to your network management success.
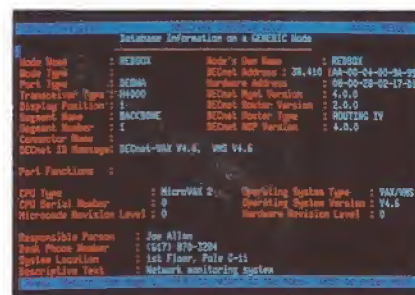
They're backed by our worldwide service organization of 35,000 professionals—and a billion-dollar investment in leading-edge service technology.

They're one more reason why Digital continues to receive outstanding marks where they count most: in customer satisfaction.

Hardware and Software Requirements

The following hardware items are required (in the host):

- Any valid VAX/VMS configuration with the exception of MicroVAX I and VAX-stations.
- VT125, VT240/241 Graphics Terminals.
- VAX ETHERnim will run as a layered VMS application with the following software:
- VAX/VMS Operating System Version 4.6 or higher.
- DECnet/VAX Phase IV Software (End Node or Routing Node).

Software modules for task-to-task path testing of remote nodes will be supplied for the following:

- VAX/VMS V4.6 Operating System